PRE-APPEAL BRIEF REQUEST FOR REVIEW	Docket Number (Optional) AMC-003	

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] on _____ Signature_____ Typed or printed name _____	Application Number 09/706,227	Filed 11/03/2000
	First Named Inventor Erling H. Wold	
	Art Unit 2626	Examiner Michael Opsasnick

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
          Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest.
   See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
   (Form PTO/SB/96)

☒ attorney or agent of record.
   Registration number _____35,539_____.

☐ attorney or agent acting under 37 CFR 1.34.

   Registration number if acting under 37 CFR 1.34 _____

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December 17, 2007
_____
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☐ *Total of _____ forms are submitted.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Art Unit: 2626   Examiner: Michael N. Opsasnick

Serial No.: 09/706,227   Filed: November 3, 2000

In Re Application of: Wold et al.

For: METHOD AND APPARATUS FOR CREATING A UNIQUE AUDIO
       SIGNATURE

ARGUMENT ACCOMPANYING PRE-APPEAL BRIEF REQUEST

FOR REVIEW

Mailstop AF
Commissioner for Patents
P.O. Box 1450
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This argument accompanying pre-Appeal Brief Request for Review is submitted in response to the Final Office Action mailed September 17, 2007.

Independent claim 45 was rejected under 35 U.S.C. §103 (a) as being unpatentable over U.S. Patent Number 4,918730 issued to Schulze (Schulze) in view of U.S. Patent 5,918,730 issued to Blum et al (Blum) in further view of U.S. Patent Number 5,327,521 issued to Savic et al. (Savic) in further view of U.S. Patent Number 6,092,040 issued to Voran (Voran).

Claim 45 claims:

A method for determining an identity of a sampled work, said method comprising:

receiving data of a sampled work;

segmenting said data of said sampled work into a plurality of segments, said segments having predetermined a predetermined segment size and a predetermined hop size;

creating a plurality of signatures wherein each of plurality of signatures is a signature of one of said plurality of segments and wherein each of said plurality of signatures is of said predetermined segment size and said predetermined hop size;

comparing said plurality of signatures of said sampled work to a plurality of reference signatures of each of a plurality of reference works wherein said plurality of reference signatures of each of said plurality of reference works are created from a plurality of segments of said each of said plurality of reference works having a known segment size and a known

hop size and said predetermined hop size of each of said plurality of segment of said sampled work is less than said known hop size; and

determining an identity of said sample work responsive to said comparison of said plurality of signatures of said sampled work to said signatures of said plurality of reference works.

The present claimed invention thus: samples a signal; segments the samples with predetermined segment and hop sizes; creates a signature for each segment; compares the sample segments against signatures for a number of segments of a plurality of references, with the hop size of the sample segments being less than the hop size of the reference segments; and then determining the identity of the sampled work through this comparison.

Of particular note here is the second to last paragraph that requires that the hop size of the sample signal segments be less than the hop size of the segments for the various reference works.

The examiner first suggests that a combination of Schulze, Blum, and Savic teaches using different hop sizes, but to be used on subsections of a single signal. However, the first two references do not show hop sizes, and Savic shows using a fixed segment and hop sizes (Col. 4, Lines 36-43, FIG. 4) of a 256 samples sampled at 10 kHz, with a shift distance (i.e. hop size) of 64 samples. Thus, the element of different hop sizes is missing from the cited references.

Note also that Savic does not involve matching a signal against a database of signals to determine if they are the same, but rather it matches utterances from source and target speakers (Col. 2, Lines 18-22). This is a different problem than

is faced by the present invention, and there is no reason to believe that the solutions would be analogous, or would even work between Savic and the present invention. Because of the different problems being addressed, and that the two problems would most likely very necessitate different solutions, it is clear that proscribed hindsight was used to select Savic.

Also, the justification for combining Savic was to "*overlap… signal processing because it would advantageously produce a smooth spectrum*". There is no reason to believe that smoothing the spectrum of signals would be advantageous in the least. Indeed, since Schulze and the present invention involve attempting to match samples with reference signals are that are presumably the same, such a smoothing would likely reduce the ability to match, or, at a minimum, result in numerous false positive matches. Additionally, the smoothing comes at a significant cost in resources, which is unnecessary for the present invention, and thus teaches away from the combination.

The examiner then admits that different hop sizes be used with Voran. However, first note that Voran is not analogous art. It does not involve comparing a sample of a signal to a database of reference samples to determine whether a match can be found, but rather, a first signal against a second signal to determine the time lag between them (Abstract). Note that in Voran, the two signals are known (or at least presumed) to match. That is just the opposite of the present invention which is attempting to find a match. The two problems being solved are radically different, and therefore, it is apparent that proscribed hindsight is again being utilized to combine this reference.

Indeed, it can be seen from Voran FIG. 2 that that invention would not work at all with the problem addressed by the currently claimed invention. The cost of the Speech Signal Preparation Algorithm 210, 260 and the Frequency Domain

Transformation Algorithm 220, 270 would be cost prohibitive in view of attempting to match a sampled signature to a large set of stored signatures for a number of reference works, attempting to identify a matching reference work. It works in Voran since the two signals are known to be mostly the same, one just lagged from the other. Thus, Voran teaches away from being combined with the other three references for this purpose.

Also, it is not clear from the segment of Voran where that reference shows different hop sizes are shown.

Additionally, note that the claim actually claims a sample signal segment hop size smaller than the hop size of the reference signal segments. That is not the same or even equivalent of Voran teaching "*using different hop sizes when comparing test signals to reference signals*" (OA Page 4).

The justification for combining Voran is that "*it would have been an effective way to measure/distinguish speech devices*". Note first that that justification is found in Voran, and thus the other three references cannot teach or suggest that justification. Secondly, it is relevant only for Voran, and has no real relevance to the other three references. And, indeed, the present invention is not aimed at speech recognition, but rather at matching (typically) audio segments of a sample signal to those of segments of reference works. Neither of the first three references would appear to be improved by Voran, since they are not aimed at determining lag between two signals known to be the same or similar (Abstract).

The remainder of the independent claims are similar to this claim, but of a different format or type. Additionally, all the dependent claims are dependent on a claim that has these limitations.

Thus, the four combined references do not show, teach, or suggest the cited claim elements. Furthermore, the justification for the combination of either Savic or Voran is improper. Furthermore, the first two references teach away from combining Savic, and the first three references teach away from combining Voran. Applicants therefore submit that the examiner has not made a prima facie case of obviousness, that this rejection is improper, and request that it be withdrawn.

Respectfully submitted,
SIERRA PATENT GROUP, LTD.

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